Universiti Teknologi MARA

HANDWRITING ANALYSIS FOR EMPLOYEE SELECTION USING NEURAL NETWORK

Zuriana Binti Mohd Zam
2004218746

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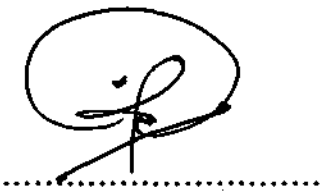
DECLARATION

I certify that this thesis and the research is a product from my effort and from my own work. Any quotation from other people works and ideas are published and are fully acknowledged based on the standard referring practices of the discipline.



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ZURIANA BINTI MOHD ZAM

2004218746

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ABSTRACT

This research project is about the handwriting analysis in revealing a personality for employee selection using the artificial neural network. The objectives of the research are to design a neural network model and to develop a neural network prototype that can be used by the employer in selecting and hire best applicant based in the size of the applicant handwriting that reveals the applicant personality. Two approaches that been used are distributed questionnaire among 100 respondent and using back-propagation model. This allowed researcher makes connection between handwriting analysis and neural network technique. 100 sample of handwriting has been collected from the questionnaire. From the handwriting sample, extraction feature has been done. The researcher extract an alphabet 'a' from the handwritings sample in order to represents the size of the handwriting and as the input for the back-propagation model. The network structure for the back-propagation model is 80 input nodes, 10 hidden nodes and 1 output node. This network structure has been tested with several number or learning rate and momentum in order to achieve more efficient network and as the result the best learning rate value and momentum value have been choose. The flexible and optimum value for stopping criteria is also being determined. At the end of completion project period, researcher found out that the result from the network model is accurate with the desired result and therefore, all objective in this research project have been achieved.